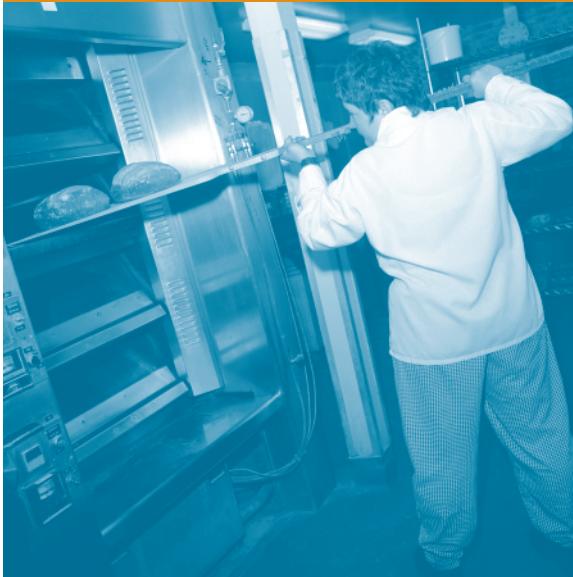


CALIFORNIA OCCUPATIONAL GUIDES



BAKERS, MANUFACTURING



WHAT DOES A MANUFACTURING BAKER DO?

Commercial baking is a multi-billion dollar business. Bakeries produce perishable goods such as bread, rolls, pies, cakes, doughnuts and less perishable ("dry") goods that include cookies, crackers, pretzels, and ice cream cones. Bakeries sell these goods to the retail market - restaurants, stores, hospitals, grocery store chains, and retail bake shops.

Baking in large, modern industrial facilities is generally done on an automated, mass production basis involving sophisticated electronic control systems. Hand operations are kept to a minimum.

CALIFORNIA OCCUPATIONAL GUIDE - NUMBER 330
2003

INTEREST AREA
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Job titles and common tasks in commercial bakeries include:

- Bakers – Supervise and coordinate the activities of workers engaged in production jobs.
- Dough Mixers – Weigh, sift and combine measured portions of ingredients into blending machines and set time and speed controls for the mixing process.
- Dividers – Adjust machines to divide and flour the dough to desired consistency.
- Molding-Machine Operators – Place sheeted dough into machines for formation into desired shapes.
- Bench Hands – Knead, form, and pat the dough by hand when fancy shaped products are produced.
- Oven Tenders – Adjust temperatures, humidity, and conveyor speed for baking.

The most modern commercial bakeries have adopted a system of 'continuous mixing', which allows for the continuous production of pre-baked products with virtually no human involvement in the baking process. This has resulted in a single machine performing all the steps of dough preparation in a continuous operation. These facilities employ the following group of workers:

- Broth Mixer – Weigh and combine ingredients and oversees fermentation of the "broth" (starter ingredients).
- Panel Operator or Dough Miser – Control the central panel tending the machine.
- Oven Loaders and Oven Tenders – Assist in conveying and baking.

Baked goods in both types of facilities travel to the workstations of Slicing Machine Operators and Bread-Wrapping-Machine Feeders. These workers, whose duties are sometimes combined, feed loaves onto connectors for slicing, wrapping, labeling, and inspecting on their way to the shipping department.

Other jobs that are found in some bakeries include icing mixers, machine and hand icers, and cake decorators. Baker helpers work at various stations and get their job titles from assignments such as mixer helpers, divider helpers, pan dumpers, pan greasers, hand icer helpers and others. Clean-up workers, known as sanitors, wash pans, utensils, and machines using high-powered sprays or steam.

WHAT SKILLS ARE IMPORTANT?

Important skills, knowledge, and abilities for Manufacturing Bakers include:

- Operation and Control – Controlling operations of equipment or systems.
- Reading Comprehension – Understanding written sentences and paragraphs in work-related documents.
- Mathematics – Using mathematics to solve problems.
- Production and Processing – Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
- Information Ordering – The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Visual Color Discrimination – The ability to match or detect differences between colors, including shades of color and brightness.

Manufacturing Bakers must also possess the knowledge of production planning and processing to do their jobs well. This includes knowing about raw ingredients, quality control, costs, and baking techniques.

WHAT'S THE WORK ENVIRONMENT?

Bakeries are kept spotlessly clean, and personal cleanliness is very important. Work areas can be uncomfortably hot and noisy. Employers who require uniforms furnish and launder employee uniforms. Oven mitts are also supplied to employees when necessary. Bakery production jobs are usually performed at a fast, steady pace while standing. Many plant jobs involve strenuous physical work, including heavy lifting, despite the use of machinery.

Union Membership

Many large bakeries and some small shops have contracts with the Bakery, Confectionery and Tobacco Workers' International Union of America, AFL-CIO.

WHAT'S THE CALIFORNIA JOB OUTLOOK?

The following information is from the occupational projections produced by the Employment Development Department's Labor Market Information Division:

Estimated number of workers in 2000:	18,900
Estimated number of workers in 2010:	23,100
Projected Growth 2000-2010:	22.2%
Est. openings due to separations by 2010:	3,300
<i>These figures do not include self-employment.</i>	

The Manufacturing Bakers occupation is expected to grow at an average rate compared with all occupations in California through 2010.

Baking is one of the nation's most stable industries with employment little affected by seasonal variations. New and improved laborsaving technologies and mechanization in processing bakery products may curb job growth. Turnover in the industry is generally low. The majority of anticipated job opportunities will result from the need to replace workers who leave the occupation.

Trends

The trend in baking is towards an ever-increasing level of automation throughout a manufacturing facility. The industry has envisioned baking facilities that are 'totally integrated'. Such facilities are completely driven by customer demand. Manufacturer's representatives at the customer's facility, such as a supermarket, enter orders into a hand-held wireless device, which sends orders directly to the bakery. These orders are compiled and constantly updated. Production orders are then sent to the baking lines, and goods are baked. Baking and truck loading is based upon the customer's distance from the plant; those farthest away are baked and loaded first, so they arrive fresh. With production runs as short as 20 minutes, full product mixes can be baked, wrapped and loaded onto trucks for shipment to a variety of locations. The goal of this process is to eliminate warehouses, minimize manual handling of goods, and ensure the freshest product possible.

WHAT DOES THE JOB PAY?

California Earnings

Bakers 2002 Wages

Hourly wages range from	\$8.30	to	\$14.52
Average hourly wage	\$11.76		
Average annual wage	\$24,477		

Source: Occupational Employment Survey of Employers by EDD/LMID.

Hours

The typical workweek ranges from 35 to 40 hours a week or more. Bakeries may work around the clock or in the early morning to ensure fresh baked goods first thing in the morning.

Most employers pay more (shift differential) for both night shift and Sunday work. Working hours in the industry vary throughout the State; some workers begin their shift early in the morning, others work the night shift.

Benefits

Most large employers provide vacation, holidays, and sick leave and contribute funds toward life insurance, medical, dental, and retirement. Smaller bakeries may or may not offer full benefits.

HOW DO I PREPARE FOR THE JOB?

Education and Training

Most employers prefer high school and vocational school graduates. Workers may enter the industry at the semi-skilled level and achieve journey-level status on the job. Applicants should be at least 18 years old and be able to read and write.

Applicants must pass a basic arithmetic test since math skills are needed to modify baking formulas. Good health is essential and a physical examination is required, in addition to a health certificate indicating freedom from communicable diseases. Most inexperienced production workers are hired as helpers and progress to production jobs, learning advanced skills on the job.

Licensing and Certification

Bakers are not licensed or certified.

Continuing Education

Bakers acquire new skills and learn to operate new equipment on the job.

HOW DO I FIND THE JOB?

Direct application to employers remains one of the most effective job search methods. Private firms are listed in the yellow pages under Bakeries. California job openings can be found at various online job-listing systems including CalJOBSSM at www.caljobs.ca.gov or at America's Job Bank at www.ajb.dni.us.

For other occupational and wage information and a listing of the largest employers in any county, visit the Employment Development Department Labor Market Information Web page at www.calmis.ca.gov. Find further job search assistance from your nearest Job Service office www.edd.ca.gov/jslc.htm or the closest One-Stop site listed on the California WorkNet site, www.sjtcc.ca.gov/sjtccweb/one-stop.

In addition, job applicants may wish to contact the local Bakers union.

WHERE CAN THIS JOB LEAD?

Most large bakeries offer on-the-job training programs to upgrade skills and allow workers to bid for promotional jobs. Workers with a greater educational achievement may be favored for later promotional opportunities. They also encourage employees to take technical and management courses at vocational or community colleges. Journey-level workers with leadership skills may promote to working or department supervisors, relocate in hotel or restaurant bakeries, or consider opening their own bakeries.

OTHER SOURCES OF INFORMATION

Bakery, Confectionery, Tobacco Workers and Grain Millers Int'l Union Local 85
7125 Governors Circle
Sacramento, CA 95823
(916) 393-7233

Bakery, Confectionery, Tobacco Workers and Grain Millers Int'l Union Local 37
6801 East Washington Blvd.
City of Commerce, CA 90040-1905
(323) 722-3790

American Bakers Association
1350 I Street NW, Suite 1290
Washington, DC 20005-3300
(202) 789-0300
www.americanbakers.org

CA Division of Apprenticeship Standards
For the closest district office, visit
www.dir.ca.gov/DAS/das.html, or call
Apprenticeship Standards Information listed
in your telephone directory white pages

Employment Projections by Occupation
www.calmis.ca.gov/htmlfile/subject/occproj.htm

Employment and Wages by Occupation
[www.calmis.ca.gov/file/occup\\$/OES\\$.htm](http://www.calmis.ca.gov/file/occup$/OES$.htm)

RELATED OCCUPATIONAL GUIDES

Cooks and Chefs	No. 93
Bakers, Retail	No. 532

OCCUPATIONAL CODE REFERENCES

SOC (*Standard Occupational Classification*)
Bakers 51-3011

O*NET (*Occupational Information Network*)
Bakers, Manufacturing 51-3011.02

OES (*Occupational Employment Statistics*)
Bakers, Manufacturing 89805

DOT (*Dictionary of Occupational Titles*)
Dividing-Machine Operator 520.685-086
Dough Mixer 520.685-234
Baker 526.381-010